

**DIVISION 2**

**SITE WORK**

## SECTION 02070

### SELECTIVE DEMOLITION

#### PART 1 – GENERAL

##### 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Demolition and removal of selected portions of a building.
  - 2. Patching and repairs.

##### 1.2 DEFINITIONS

- A. Remove - Remove and legally dispose of items except those indicated to be reinstalled or to remain the FAA's property.
- B. Remove and Save for Reuse - Remove items indicated; clean, service, and otherwise prepare them for reuse; store and protect against damage. Reinstall items in the same locations or in locations indicated.
- C. Existing to Remain - Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the COTR, items may be removed to a suitable, protected storage location during selective demolition and then cleaned and reinstalled in their original locations.
- D. Salvage - Detach items from existing construction and deliver them to COTR.

##### 1.3 MATERIALS OWNERSHIP

Except for items or materials indicated to be reused, reinstalled, or otherwise indicated to remain the FAA's property, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option.

##### 1.4 SUBMITTALS

- A. Proposed dust-control measures.
- B. Proposed noise-control measures.
- C. Air Quality Plan - Submit plan for maintaining fresh air in work areas and removal of odors from work area during construction. Include list of products that will emit an air-borne odor and MSDS for each product, including, but not limited to:
  - 1. Paints.
  - 2. Adhesives.
  - 3. Sealants.
- D. Schedule of selective demolition activities indicating the following:

1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure FAA on-site operations are uninterrupted.
  2. Interruption of utility services - Indicate how long utility services will be interrupted.
  3. Coordination for shutoff, capping, and continuation of utility services.
  4. Coordination of FAA's continuing occupancy of portions of existing building.
  5. Locations of temporary partitions and means of egress.
- E. Inventory of items to be removed.
- F. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by selective demolition operations.
- G. Record drawings at project closeout.
1. Identify and accurately locate capped utilities and other subsurface structural, electrical, or mechanical conditions.

#### 1.5 QUALITY ASSURANCE

- A. Demolition Firm Qualifications - An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this project.
- B. Regulatory Requirements - Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Standards - Comply with ANSI A10.6 and NFPA 241.
- D. Predemolition Conference - Conduct conference at project site to review methods and procedures related to selective demolition including, but not limited to, the following:
1. Inspect and discuss condition of construction to be selectively demolished.
  2. Review structural load limitations of existing structure.
  3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
  4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
  5. Review areas where existing construction is to remain and requires protection.
  6. Locate proposed dust proof barriers for approval prior to proceeding with work.
  7. Review work noise or any other direct impact to the control room as determined by Air Traffic Operations. These situations may be required to be performed during low traffic periods (2:00 AM – 5:30 AM), on weekends and/or holidays to minimize impacts to Air Traffic operations. A two (2) week notice to the FAA prior to work will need to be issued by the Contractor in order for the FAA to give the workforce proper notification when noise will impact operations.

1.6 PROJECT CONDITIONS

- A. Government will occupy portions of the building immediately adjacent to selective demolition area. Conduct selective demolition so that Government's operations will not be disrupted. Provide not less than 14 calendar days notice to Government of activities that will affect Government's operations.
- B. Government assumes no responsibility for actual condition of buildings to be selectively demolished.
  - 1. Conditions existing at time of inspection for bidding purpose will be maintained by Government as far as practical.
- B. Hazardous Materials - Asbestos, lead-containing coatings, PCB's and other hazardous materials are present in the building areas to be selectively demolished. Duct insulation is known to have ACM.
  - 1. Refer to the Contract Drawings for locations of asbestos removal.
  - 2. Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures specified elsewhere in the Contract Documents.
  - 3. Inspections of hazardous material did not allow for "destructive" sampling, therefore there is no information what might be behind existing walls. Upon discovery of unknown material, work will stop and samples collected. Once tested, the contractor shall wait for results, then meet with COTR to discuss the course of action.
- C. Fluorescent Bulbs - The Universal Waste Rule added fluorescent lamps in order to streamline handling requirements and to allow for storage of lamps for recycling purposes (spent lamps may be stored to reduce trips to the recycling facility). Spent fluorescent lamps should be taken to the nearest fluorescent lamp recycling facility or disposed of in a permitted landfill that will accept spent waste lamps.
- D. Storage or sale of removed items or materials on-site will not be permitted

1.7 SCHEDULING

Arrange selective demolition schedule so as not to interfere with FAA's on-site operations.

1.8 WARRANTY

Existing Warranty - Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.



**PART 2 – MATERIAL**

**2.1 REPAIR MATERIALS**

- A. Use repair materials identical to existing materials.
  - 1. Where identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
  - 2. Use materials whose installed performance equals or surpasses that of existing materials.
- B. Use low-VOC (volatile organic compound) products. Provide newer-formulated, low-VOC products in place of existing products for repairs and renovation for the work.

**PART 3 – EXECUTION**

**3.1 EXAMINATION**

- A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- B. Inventory and record the condition of items to be removed and reinstalled and items to be removed.
- C. When unanticipated mechanical, electrical, or structural elements that conflict with the intended function or design are encountered, investigate and measure the nature and extent of the conflict. Promptly submit a written report to the RE.
- D. Survey the condition of the building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during selective demolition.
  - 1. Before selective demolition or removal of existing building elements that will be reproduced or duplication in final work, make permanent record of measurements, materials and construction details required to make exact reproduction.
- E. Perform surveys as the work progresses to detect hazards resulting from selective demolition activities.

**3.2 UTILITY SERVICES**

- A. Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Do not interrupt existing utilities serving occupied or operating facilities, except when authorized in writing by RE. Provide temporary services during interruptions to existing utilities, as acceptable to RE.
  - a) Provide not less than 14 calendar days notice to FAA if shutdown of service is required during changeover.

### **3.3 PREPARATION**

- A. Conduct demolition operations and remove debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
  1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from RE. Provide alternate routes and by-passes constructed to provide dust-protection around closed or obstructed traffic ways if required by governing regulations.
- B. Conduct demolition operations to prevent injury to people and damage to adjacent buildings, rooms, and facilities to remain. Ensure safe passage of people around selective demolition area.
  1. Protect existing site improvements and appurtenances to remain.
  2. Protect walls, ceilings, floors, and other existing finish work that are to remain and are exposed during selective demolition operations.
  3. Cover and protect furniture, furnishings, and equipment that have not been removed.
- C. Erect and maintain dust-proof partitions to limit dust and dirt migration and to separate areas from fumes and noise.
  1. Seal joints and perimeter.
  2. Protect air-handling equipment.
- D. Preserve stability and prevent movement, settlement, or collapse of building to be selectively demolished.
  1. Strengthen or add new supports when required during progress of selective demolition.

### **3.4 POLLUTION**

- A. Use water mist, temporary enclosures, and other suitable methods to limit the spread of dust and dirt. Comply with governing environmental protection regulations.
  1. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.
- B. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

- C. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before start of selective demolition.

### **3.5 SELECTIVE DEMOLITION**

- A. Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete work within limitations of governing regulations and as follows:
  - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition work above each floor or tier before disturbing supporting members on lower levels.
  - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. To minimize disturbance of adjacent surfaces, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
  - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  - 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations. Torch cutting or welding only permitted in staging area and other area designated by RE.
  - 5. Maintain adequate ventilation when using cutting torches.
  - 6. Remove decayed, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
  - 7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
  - 8. Locate selective demolition equipment throughout the structure and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
  - 9. Dispose of demolished items and materials promptly.
  - 10. Return elements of construction and surfaces to remain to condition existing before start of selective demolition operations.
- B. Remove resilient floor coverings and adhesive according to recommendations of the Resilient Floor Covering Institute's (RFCI) "Recommended Work Practices for the Removal of Resilient Floor Coverings" and Addendum.

### **3.6 PATCHING AND REPAIRS**

- A. Promptly patch and repair holes and damaged surfaces caused to adjacent construction by selective demolition operations.
- B. Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.



- C. Restore exposed finishes of patched areas and extend finish restoration into adjoining construction to remain in a manner that eliminates evidence of patching and refinishing.
- D. Patch and repair floor and wall surfaces where demolished walls or partitions extend one finished area into another. Provide a flush and even surface of uniform color and appearance.
  - 1. Closely match texture and finish of existing adjacent surface.
  - 2. Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
  - 3. Where patching smooth painted surfaces, extend final paint coat over entire unbroken surface containing the patch after the surface has received primer and second coat.
  - 4. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
  - 5. Inspect and test patched areas to demonstrate integrity of the installation, where feasible.

### 3.7 DISPOSAL OF DEMOLISHED

- A. General - Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site. Coordinate removal from building and site with COTR.
- B. Burning - Do not burn demolished materials.
- C. Disposal - Transport demolished materials off FAA's property and legally dispose of them.

### 3.8 CLEANING

- A. Sweep the building broom clean on completion of selective demolition operation.
- B. Change filters on air-handling equipment on completion of selective demolition operations.

## PART 4 – QUALITY ASSURANCE

NOT USED

\*\*\* END OF SECTION \*\*\*